

REMARKS/ARGUMENTS

The present communication is responsive to the Official Action mailed December 3, 2004. A petition for a three-month extension of the term for response to said Official Action up to and including May 3, 2004, is transmitted herewith. As said Official Action was a final Official Action, Applicant's request for continued examination is also transmitted herewith.

Claims 1-32 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Siiman et al.*, *Ugelstad et al.*, or *Margel et al.* in view of *Remington*, *Callewaert et al.* and *Vasconcelos et al.* The Examiner has alleged that the scope of the claims does not necessarily require a repeating of steps (d)-(f), instead calling for such repetition, "as required to obtain monodispersed nanoparticles coated with magnetic metal oxide." The Examiner further alleges that Applicants appear to ignore that repeating steps (a)-(d) in the instant claims appears to be discretionary and subsequent to preparation of monodispersed nanoparticles. Applicants respectfully traverse this rejection in view of the above amendments and for the reasons set forth below.

Applicants respectfully submit that "repeating" in step 1(g) necessarily implies that the steps must be done again. At the very least, two successive additions must be performed in accordance with the claimed invention. Each of the cited primary references, *Siiman et al.*, *Ugelstad et al.*, or *Margel et al.*, introduce metal ions in a single dose. Nevertheless, Applicants have amended the claims to more precisely claim their invention. No new matter has been introduced in the amendment; thus, entry of the amendment is respectfully requested.

Moreover, none of the prior art produces monodispersed nanoparticles coated with magnetic metal oxide, much less teaches this specific method. *Ugelstad et al.*

discloses methods of preparing porous magnetic particles in which polymer particles are prepared and provided with active radicals, except where they are porous particles, in contact with a mixture of iron salts so as to prepare particles having magnetic oxides on the surface as well as in the body of these particles. *Siiman et al.* discloses a one-step process for preparing coated colloidal metal(O) particles by heating aqueous solutions of a metal salt with an amino-derivitized polysaccharide with at least one reducible sugar component to reduce the metal salt to a metal(O) particle or simultaneously coating the particle with the polysaccharide. There is no suggestion in *Siiman et al.* of magnetic metal oxides, nor of controlling the oxidation state to form an oxide that is magnetic. *Margel et al.* discloses methods of preparing polyacrolein microspheres, and does not generally relate to preparing nanoparticles coated with magnetic metal oxides. The product produced by *Margel et al.* certainly does not constitute a nanoparticle having a magnetic metal oxide coating thereon.

The Examiner admits that *Siiman et al.*, *Ugelstad et al.*, and *Margel et al.* fail to teach repetition of steps d) through f) of claim 1. Furthermore, the secondary references relate to conventional titration, which is not the subject of this invention, and in any event there is no motivation whatsoever to combine the teachings of these references, since the secondary references have nothing to do with the production of nanoparticles coated with magnetic metal oxides or anything of the sort.

Indeed, the Examiner appears to have ignored the entire specification, including examples in this case which vividly demonstrate stepwise additions, required by the claims. Indeed, in Example 2, it is seen that three doses are recited and the results are compared with the addition of a single dose,

showing a remarkable superiority of results. Additionally, Example 18, Table 6 shows the results of a single dose addition compared with the results of the addition of two and four doses. Clearly, when the addition of a single dose would produce total agglomeration of the particles, the addition of two doses overcomes that defect and produces particles of narrow size distribution. These results have been unobtainable to date. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections.

Claims 1-32 also stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Elaissari et al.* The Examiner alleges that *Elaissari et al.* teaches methods of preparing monodispersed particles of superparamagnetic compounds comprising the steps of preparing an aqueous solution of a first and second polymers, adding an anionic ferrofluid comprising iron oxides solution which is stable between pH 6-8, causing the polymer and the iron oxide to interact electrostatically. The Examiner further alleges that it would have been obvious to use the method of *Elaissari et al.* at suitable pH's above 7 because *Margel et al.* teaches that such pH would lead to optimal interaction between the polymeric solution and iron oxide dispersion. Applicants respectfully traverse this rejection for the reasons set forth below.

*Elaissari et al.* discloses superparamagnetic particles, which have a different structure than the monodispersed nanoparticles of the present invention. Moreover, the process disclosed in *Elaissari et al.* comprises the preparation of a first polymer and a second polymer in salt form, and bringing the magnetic material into contact with the polymers; it is silent with respect to introducing the magnetic material in successive doses. Additionally, as stated above, this element is not present in *Margel et al.* Thus,

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reconsideration and withdrawal of the rejection is respectfully requested.

Particularly in light of the amendments made herein, it is respectfully submitted that all of the claims in this application now possess the requisite novelty, utility and unobviousness to warrant their immediate allowance, and such action is therefore respectfully solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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